

AUTHOR INDEX TO VOLUME 24

A

Achiron, A., 765  
Adams, L. E., 233  
Ahern, D., 713  
Ahmed, I. S. A., 725  
Aiba, Y., 927  
Anstee, D. J., 187  
Apostolski, S., 595  
Athwal, R. S., 999  
Aziz, W. I., 947

B

Bagga, P. S., 999  
Balakrishnan, K., 233  
Barbacane, R. C., 523  
Barranquero, M., 891  
Bartle, L., 523  
Bastide, M., 655  
Bettigole, R. E. (book review),  
861  
Bhogal, B., 805  
Bianco, C., 155  
Blajchman, M. A., 163, 311  
Bordin, J. O., 311  
Bouanani, M., 655  
Bowden, R. A., 117  
Bowles, M. J., 679  
Boyd, S., 795  
Broxmeyer, H. E., 391  
Busch, M. P., 147  
Bussel, J. B., 451

C

Campagnari, A. A. (book review), 1021  
Casasola, J., 865  
Chen, S.-S., 805  
Chen, S.-S. A., 965  
Cheng, L., 499  
Choi, B. M., 583  
Chung, H. T., 583  
Clark, S. S., 509  
Collins, A. R., 977  
Conti, P., 523  
Csabayová, M., 787  
Cunningham, R. K., 881

D

Daar, A. S., 725  
Daniels, G., 199  
Davenport, R. D., 319  
Davey, R. J., 431  
Davis, M. M., 927  
de Haas, M., 245  
Del Rio, M., 655  
Djaldetti, M., 765  
Djaldetti, R., 765  
Dodd, R. Y., 25  
Dracker, R. A., 403, 443  
Dzik, W., 95

E

Elizondo, N., 865  
Ende, M., 999

Ende, N., 999  
 Ennis, F. A., 619  
 Esparza, B., 891  
 Estrada, A., 819

## F

Fabry, J., 489  
 Fernandez, L. A., 669  
 Fishman, P., 765  
 Fizzotti, M., 509  
 Friedman, L. I., 49  
 Fujimoto, S., 927

## G

Garratty, G., 213  
 Geha, R. S., 713  
 Giuliani, D., 999  
 Godyn, J., 999  
 Greenwalt, T. J., 3

## H

Hattori, N., 927  
 Heaton, A., 353  
 Heaton, W. A. L., 371  
 Hemming, N. J., 187  
 Hickey, S. M., 775  
 Hizuta, A., 467, 479  
 Holme, S., 353  
 Homburg, C. H. E., 245  
 Horner, A., 713

## I

Ippolito, K. M. L., 537  
 Iwagaki, H., 467, 479

## J

Janus, J., 619  
 Jayavardhanan, K. K., 565  
 Jeng, K.-C., 957

## K

Kabir, S., 725  
 Kamboj, K. K., 845  
 Kamboj, S. S., 845  
 Kariya, Y., 607  
 Katsura, Y., 927  
 Kawanishi, H., 701  
 Kihira, T., 701  
 Kim, H. M., 583  
 Kim, H. R., 583  
 Kim, H. S., 583  
 Kimberlin, D. W., 775  
 Klein, H. G., 411  
 Kochupillai, N., 573  
 Konjevic, G., 499  
 Kontsek, P., 787  
 Kontseková, E., 787  
 Kurane, I., 619  
 Kuroki, M., 829

## L

Laarveld, B., 819  
 Lambrecht, B., 73  
 Lan, J.-L., 957  
 Lancz, G., 737  
 Landau, S. B., 947  
 Langendries, A., 631  
 Lanzafame, R. J., 537  
 Latov, N., 595  
 Lee, E. J., 583  
 Leza, J. C., 643  
 Li, B., 819  
 Li, M., 927  
 Lieberman, J., 489  
 Livingston, P. G., 619

## M

MacSween, J. M., 669  
 McAlarney, T., 595  
 McCracken, G. H., Jr., 775  
 Martínez-García, L. G., 865  
 Matsuo, Y., 829  
 Matsuoka, Y., 829  
 Mazda, O., 927

Mejia-López, H., 865  
 Melamed, E., 765  
 Melamede, R., 947  
 Menitove, J. E., 423  
 Merino, F., 891  
 Meryman, H. T., 303  
 Mincheff, M. S., 303  
 Mohr, H., 73  
 Mue, S., 757  
 Mytar, B., 897

## N

Naim, J. O., 537; (book reviews), 559, 561  
 Nair, M. P. N., 689  
 Nakazato, H., 829  
 Nakeeb, S., 881  
 Nezin, R. (book review), 555  
 Nisen, P. D., 775

## O

Ogino, M., 595  
 Ohuchi, K., 757  
 Oikawa, S., 829  
 Ojeda, G., 643  
 Olsen, K. J., 499  
 Orita, K., 467, 479

## P

Panther, R. B., 965  
 Paris, M. M., 775  
 Pau, B., 655  
 Pérez, C., 891  
 Perkins, H., 289  
 Petro, T. M., 805, 965  
 Pierce, P. F., Jr., 987  
 Piertersz, R. N. I., 87  
 Placido, F. C., 523  
 Pockley, A. G., 679  
 Podack, E. R., 499  
 Ponzio, N. M., 999  
 Portolés, J. M., 643  
 Pryjma, J., 897

## Q

Qutaishat, S., 435

## R

Raju, R., 573  
 Ramesh, N., 713  
 Reale, M., 523  
 Redmond, M. J., 819  
 Reed, E., 273  
 Reesink, H. W., 87  
 Reid, S. D., 679  
 Robson, D. A., 669  
 Roecklein, J. A., 987  
 Rojo, J. M., 643  
 Ronda, M., 643  
 Roos, D., 245  
 Ruggiero, I., 897  
 Ruiz, M., 891  
 Ruyechan, W. T. (book review), 653  
 Ryu, S. Y., 583

## S

Sabino, E., 891  
 Salazar, M. A., 865  
 Sandhu, R. S., 845  
 Sandmaier, B. M., 907  
 Saravolatz, L. D., 689  
 Sazama, K., 131  
 Schlesinger, B., 499  
 Schmaltz, R., 805  
 Schwartz, S. A., 689  
 Selman, M., 865  
 Selz, A., 73  
 Shah, P., 573  
 Shangary, S., 845  
 Shankar, P., 489  
 Singh, J., 845  
 Sipe, J., 523  
 Snyder, E. L., 333  
 Specter, S. C., 737  
 Spuzic, I., 499  
 Srikanta, S., 573  
 Stayton, P. S., 907  
 Stenecker, I., 87



Strauss, R. G., 341  
 Stromberg, R. R., 49  
 Suresh, K., 565  
 Swartz, R. P., 987  
 Sweeney, J. D., 353  
 Szatrowski, T. P., 451

## T

Tan, P. H., 907  
 Tanabe, J., 757  
 Tanaka, N., 467, 479  
 Tanner, M. J. A., 187  
 Tartter, P. I., 277  
 Taylor, M. L., 865  
 Teshigawara, K., 607  
 Thacore, H. R., 881  
 Tippet, P., 173  
 Toomey, S., 619

## U

Uchida, A., 607

## V

Vaerman, J. P., 631  
 Vander Maelen, C., 631  
 van der Schoot, C. E., 245  
 van Oss, C. J., 537; (book reviews), 551,  
 557, 563, 857, 859, 1013, 1015, 1017,  
 1019

Van Regenmortel, M. H. V. (book review),  
 549  
 Vasudevan, D. M., 565  
 Velasco, S., 775  
 von dem Borne, A. E. G. Kr., 245

## W

Wagner, S. J., 49  
 Wang, Y.-Y., 805  
 Watanabe, M., 757  
 Wei, Y., 607  
 Wołoszyn, M., 897  
 Woodcock-Mitchell, J., 947  
 Wu, C.-H., 957

## Y

Yaeger, H., Jr., 987  
 Yamanaka, T., 829  
 Yamazaki, H., 795

## Z

Zaleski, M. B., 881  
 Zembala, M., 897  
 Zenteno, E., 865  
 Zhao, X., 607  
 Zheng, Z. M., 737  
 Zhou, P., 881  
 Ziv, I., 765

# SUBJECT INDEX TO VOLUME 24

## A

- Abelson virus transformed pre-B cells, bone marrow stroma-dependent modulation of CD45R isoform expression on, 509-522
- Acquired immunodeficiency syndrome (AIDS), selective inhibitory effects of stress hormones on natural killer cell activity of lymphocytes from, 689-699
- Adhesive molecules, the role of in febrile nonhemolytic transfusion reactions, 333-339
- Aging, CD8<sup>+</sup> T cell subsets in, 891-895
- Allelic exclusion, abrogation of in a T cell receptor  $\beta$  chain gene transgenic mouse strain, 927-946
- Allergic inflammation model, in rats, leukocyte-derived neutrophil chemotactic factor-2 produced by infiltrated leukocytes in as macrophage inflammatory protein-2, 757-764
- Allogeneic blood transfusions
  - reduction of exposure to by an alternative strategy for autologous blood transfusion, 435-441
  - the tumor growth-promoting effect of, 311-317
- Anemia, neonatal, pathophysiology and treatment of, 341-351
- Antibodies
  - anti-CD44 single-chain Fv, as a stimulator of natural killer cell activity and inducer of tumor necrosis factor alpha release, 907-926
  - anti-galactocerebroside, specificity and cross-reactivity of, 595-606
- Anti-galactocerebroside antibodies, specificity and cross-reactivity of, 595-606
- Antigenic homology, relativity of between human interferon alpha 1 and interferon alpha 2c, 787-793
- Antigens
  - blood group, as tumor markers and parasitic/bacterial/viral receptors and their association with immunologically important proteins, 213-232
  - carbohydrate (book review), 563-564
  - carcinoembryonic antigen related, differentially localized in intracellular granules of human neutrophils, immunochemical analysis of, 829-843
  - high dose, reversal of immune suppression induced by in mice by administration of dehydroepiandrosterone, 583-593
  - I-45 islet cell, as a 68kD neuroendocrine protein, 573-582
  - Mycobacterium tuberculosis*, in patients with rheumatoid arthritis, 957-964
  - neutrophil, 245-272
  - red cell, molecular aspects of, 199-212
  - soluble MHC class 1 (RT1<sup>a</sup>), an enzyme immunoassay for and for the release of from mitogenically stimulated mononuclear cells, 679-687
- Araceae, new lymphocyte-simulating monocot lectins from, 845-855
- Astroglial cells, human, modulation of expression of genes involved in the inflammatory response in by lipopolysaccharide and temperature, 775-785



- Autoimmune disease models (book review), 555
- Autologous blood transfusion, an alternative strategy of for reducing exposure to allogeneic blood transfusion, 435-441

## B

## B cell

- bone marrow deprived, induction of immunoglobulin A differentiation of by Peyer's patch autoreactive helper T cells, 701-711
- colonies, growth of independent of T cells, 669-678

## Bacteria

- contamination of blood products by, the value of pretransfusion testing for, 163-170
- removal of by leukodepletion filters, 95-115

- Bacterial superantigens, for induction of the proliferation of resting gamma/delta receptor bearing T cells, 713-724

## Blood components

- irradiation of for prevention of transfusion-associated graft-versus-host disease, 431-434
- photodynamic virus inactivation of, 73-85
- reduction of infectivity of, 49-71
- reduction of viral contamination of, 25-48

- Blood donors, testing of for HIV, 147-154

- Blood group antigens, as tumor markers and parasitic/bacterial/viral receptors and their association with immunologically important proteins, 213-232

## Blood products

- leukodepleted, clinical benefits of, 1015-1016
- value of pretransfusion testing for bacterial contamination of, 163-170

- Blood substitutes, oxygen carrying, the development and use of, 403-410

## Blood transfusions

- allogeneic, the tumor growth-promoting effect of, 311-317
- autologous, to reduce exposure to allogeneic blood transfusion, 435-441
- effects of storage and immunomodulation in, 303-309
- graft-versus-host disease associated with and the irradiation of blood components, 431-434
- immunologic effects of, 277-288 (book review), 1013-1014
- pretransfusion testing, value of for bacterial contamination of blood products, 163-170

## reactions

- the changing priorities of, 289-302
- febrile nonhemolytic, the role of cytokines and adhesive molecules in, 333-339
- hemolytic, the role of cytokines in, 319-331
- strategies, opportunities for improvement in, 423-430

- Bone marrow stroma-dependent modulation, of CD45R isoform expression on Abelson virus transformed pre-B cells, 509-522

## C

## Cachexia, of cancer

- decreased serum tryptophan in patients with correlates with increased serum neopterin, 467-478
- plasma neopterin/C-reactive protein ratio as an adjunct to the assessment of, 479-487

- Carcinoembryonic antigen related antigens, differentially localized in intracellular granules of human neutrophils, immunochemical analysis of, 829-843

CD8<sup>+</sup> T cells

- dengue virus specific human cytotoxic clone of, modulation of functions of by interleukin-2, interleukin-7, and interferon gamma, 619-629
- subsets of in aging, 891-895

- CD80 and CD86, effect of on T cell cytokine production, 965-976
- CD45R isoform, bone marrow stroma-dependent modulation of on Abelson virus transformed pre-B cells, 509-522
- Cellular therapies, novel, 411-420
- Chemoablation, the effect of human cord blood on SJL/J mice after and its possible clinical significance, 999-1012
- Chronic fatigue syndrome (book review), 557-558
- Concentrates  
platelet, the quality of, 353-370  
red blood cell, factors influencing the removal of infectious agents from, 87-93
- Cord blood  
human, the effect of on SJL/J mice after chemoablation and irradiation and its possible clinical significance, 999-1012  
relation of growth factors to stem and progenitor cells of, 391-402
- Coronavirus OC43, human, interferon gamma modulation of HLA class I expression for potentiation of infection of neuronal cells by, 977-986
- Cytokines  
effect of CD80 and CD86 on T cell production of, 965-976  
the role of in febrile nonhemolytic transfusion reactions, 333-339  
the role of in hemolytic transfusion reactions, 319-331
- Cytomegalovirus, transfusion-transmitted infection by, 117-128
- Cytotoxic T lymphocytes, HIV-1 specific, selective expansion of *in vitro*, 489-497

## D

- Dehydroepiandrosterone, for reversal of immune suppression induced by high-dose antigen in mice, 583-593

- Dengue virus-specific human CD8<sup>+</sup> cytotoxic T cell clone, modulation of functions of by interleukin-2, interleukin-7, and interferon gamma, 619-629

- Dysgerminoma, accumulation of  $\gamma/\delta$  T cells in and roles of in autologous tumor killing and granuloma formation, 607-618

## E

- Enzyme immunoassay, for rat soluble MHC class I molecules (RT1<sup>a</sup>) and the release of from mitogenically stimulated mononuclear cells, 679-687

## F

- Febrile nonhemolytic transfusion reactions, the role of cytokines and adhesive molecules in, 333-339
- Filtration mechanisms, for leukocytes, 87-93

## G

- Gammaglobulin, intravenous, use of in immune hematologic disease, 451-456
- Gastric carcinoma patients, defective interleukin-2 R gene expression in, 565-571
- Gel preparation, the effect of on humoral adjuvancy of silicone gels, 537-547
- Graft-versus-host disease  
retrovirus-induced lymphoproliferative disease in mice undergoing, 881-890  
transfusion associated, prevention of with irradiation of blood components, 431-434
- Growth factors, and cord blood stem and progenitor cells, 391-402



## H

- Hematopoietic stem cells, an overview of therapeutic concepts for use of, 443-449
- Hemolytic transfusion reactions, the role of cytokines in, 319-331
- Hepatitis, testing for, 155-161
- Hepatoma cells, human Hep 3B, synergistic activation of serum amyloid A on by interleukin-6 and interleukin-1 in combination, 523-535
- Human immunodeficiency virus (HIV)  
     altered *in vitro* handling of *Mycobacterium avium* complex by monocytes and serum from patients who test positive for, 987-998  
     selective expansion of HIV-1-specific cytotoxic T lymphocytes *in vitro*, 489-497  
     testing of blood donors for, 147-154
- Human leukocyte antigen (HLA)  
     anti-idiotypes to, role of in transplantation, 273-274  
     class I, interferon gamma potentiation of human coronavirus OC43 infection of neuronal cells by modulation of expression of, 977-986
- Humoral adjuvancy, the effect of molecular weight and gel preparation on for silicone oils and gels, 537-547
- Humoral factors (book review), 551-553

## I

- Immune hematologic disease, use of intravenous gammaglobulin in, 451-456
- Immune parameters, suppression of in animal models of morphine dependence, 643-652
- Immune responses  
     the role of the lymphocyte in, 233-244  
     systemic and mucosal, induction of following immunization with somatostatin-avidin complexes incorporated into immune-stimulating complexes, 819-828
- Immune suppression, induced by high-dose

antigen in mice, reversal of by administration of dehydroepiandrosterone, 583-593

- Immunization, with somatostatin-avidin complexes incorporated into immune-stimulating complexes, induction of systemic and mucosal immune responses following, 819-828
- Immunocytochemistry (book review), 653-654
- Immunoglobulin A  
     for B cell differentiation of bone marrow deprived B cells, induction of by Peyer's patch autoreactive helper T cells, 701-711  
     homogenous monomers, dimers, trimers, and tetramers of from the same immunoglobulin A myeloma serum, 631-641
- Immunoglobulin G, rabbit, the binding of jacalin with, 725-735
- Immunoglobulins, intravenous, effect of on interleukin-3-like production by mononuclear cells of patients with multiple sclerosis, 765-773
- Immunologic diseases (book review), 859-860
- Immunologic effects, of blood transfusions, 277-288
- Immunology  
     illustrated dictionary of (book review), 1017-1018  
     of proteins and peptides, unwanted immune responses (book review), 1019-1020
- Immunomodulation, in blood transfusions, 303-309
- Immunopathology, diagnostic (book review), 857-858
- Immunoreactants, polypeptide, stability of on polyester cloth during dry storage using polyvinyl alcohol as a blocking agent, 795-803
- Immunotherapies, cellular, 411-420
- Infections  
     human coronavirus OC43 of neuronal cells, interferon gamma potentiation of by modulation of HLA class I expression, 977-986  
     immunotherapy of (book review), 559



- plasma neopterin/C-reactive protein ratio as an adjunct to the assessment of, 479-487
  - transfusion transmitted, of cytomegalovirus, 117-128
  - viral, laboratory diagnosis of (book review), 549
  - Infectious agents, factors influencing the removal of from red blood cell concentrates, 87-93
  - Infectious diseases, existing problems in the testing for, 131-146
  - Infectivity, reduction of for blood components, 25-48, 49-71
  - Inflammatory response, lipopolysaccharide and temperature modulation of expression of genes involved in in cultured human astroglial cells, 775-785
  - Interferon alpha 1 and interferon alpha 2c, human, the relativity of an antigenic homology between, 787-793
  - Interferon gamma
    - for modulation of the functions of dengue virus-specific human CD8<sup>+</sup> cytotoxic T cell clone, 619-629
    - monocyte-mediated regulation of antigen-driven production of by T cells, 897-906
    - as a potentiator of human coronavirus OC43 infection of neuronal cells by modulation of HLA class I expression, 977-986
  - Interleukin-6 and interleukin-1, use of in combination for synergistic activation of serum amyloid A on human Hep 3B hepatoma cell line, 523-535
  - Interleukin-3-like activity, effect of intravenous immunoglobulins on production of by mononuclear cells of patients with multiple sclerosis, 765-773
  - Interleukin-2
    - induction of perforin expression in human peripheral blood lymphocytes and CD56<sup>+</sup> natural killer cell subsets by, 499-507
    - and interleukin-2 inhibitor, in patients with rheumatoid arthritis, 957-964
    - selective inhibitory effects of stress hormones on activity of for lymphocytes from AIDS patients, 689-699
    - stimulation of activity of by an anti-CD44 single-chain Fv antibody, 907-926
  - Interleukin-2 and interleukin-7, for modulation of the functions of dengue virus-specific human CD8<sup>+</sup> cytotoxic T cell clone by, 619-629
  - Interleukin-2 R, defective, gene expression of in gastric carcinoma patients, 565-571
  - Irradiation
    - of blood components for prevention of transfusion-associated graft-versus-host disease, 431-434
    - the effect of human cord blood on SJL/J mice after and its possible clinical significance, 999-1012
  - Islet cell antigen, I-45, as a 68kD neuroendocrine protein, 573-582
- J
- Jacalin, the binding of with rabbit immunoglobulin G, 725-735
- L
- Leukocytes
    - depletion filters, use of for the removal of bacteria, 95-115
    - filtration mechanisms for, factors influencing the removal of infectious agents from red cell concentrates, 87-93
    - infiltrated, leukocyte-derived neutrophil chemotactic factor-2 production by in allergic inflammation model in rats is macrophage inflammatory protein-2, 757-764
  - Leukodepletion filters, for the removal of bacteria, 95-115
  - Lipopolysaccharide, for modulation of expression of genes involved in the inflammatory response in cultured human astroglial cells, 775-785

## Lymphocytes

- from AIDS patients, selective inhibitory effects of stress hormones on natural killer cell activity of, 689-699
- HIV-1 specific cytotoxic T, selective expansion of *in vitro*, 489-497
- human intestinal, restriction of V $\gamma$ (I) expression in, 947-955
- human peripheral blood, analysis of perforin expression in and induction of by interleukin-2, 499-507
- the role of in an immune response, 233-244
- Lymphocyte-stimulating monocot lectins, from the family Araceae, 845-855
- Lymphoproliferative disease, retrovirus induced, in mice undergoing graft-versus-host reaction, 881-890

## M

- Macrophage inflammatory protein-2, leukocyte-derived neutrophil chemo-tactic factor-2 as in production of by infiltrated leukocytes in allergic inflammation model in rats, 757-764
- Macrophages, murine, bovine serum albumin preparation enhancement of *in vitro* production of tumor necrosis factor alpha by, 737-756
- MHC class I molecules (RT1\*), soluble, an enzyme immunoassay for and the release of from mitogenically stimulated mononuclear cells, 679-687
- Molecular weight, the effect of on humor adjuvancy of silicone oils and gels, 537-547
- Monoclonal antibodies
  - murine, idiotypic restriction of to a defined antigenic region of human thyroglobulin, 655-667
  - principles and applications of (book review), 1021-1022
- Monocot lectins, lymphocyte stimulating, from the family Araceae, 845-855
- Monocytes
  - from HIV positive patients, altered *in vitro* handling of *Mycobacterium*

*avium* complex by, 987-998

as mediators of the regulation of antigen-driven interferon gamma production by T cells, 897-906

## Mononuclear cells

mitogenically stimulated, an enzyme immunoassay for the release of soluble class I MHC antigens from, 679-687

of patients with multiple sclerosis, effect of treatment with intravenous immunoglobulins on interleukin-3-like production by, 765-773

Morphine, suppression of immune parameters in animal models of dependence on, 643-652

Multiple sclerosis, effect of treatment with intravenous immunoglobulins on interleukin-3-like production by mononuclear cells of patients with, 765-773

*Mycobacterium avium* complex, altered *in vitro* handling of by monocytes and serum from HIV positive patients, 987-998

*Mycobacterium tuberculosis* antigen, in patients with rheumatoid arthritis, 957-964

Myeloma serum, immunoglobulin A, isolation of homogenous immunoglobulin A monomers, dimers, trimers, and tetramers from, 631-641

## N

## Natural killer cell

- activity
  - anti-CD44 single-chain Fv antibody as a stimulator of, 907-926
  - of lymphocytes from AIDS patients, selective inhibitory effects of stress hormones on, 689-699
- CD56+ subsets, analysis of perforin expression in and induction of by interleukin-2, 499-507
- Neonatal anemia, pathophysiology and treatment of, 341-351
- Neopterin
  - plasma, ratio of with C-reactive protein



- as an adjunct to the assessment of infection and cancer cachexia, 479-487
- serum, correlation of increase of with decrease of serum tryptophan in patients with cancer cachexia, 467-478
- Neuroendocrine protein, 68kD, I-45 islet cell antigen as, 573-582
- Neutrophil chemotactic factor-2, leukocyte derived, as macrophage inflammatory protein-2 in production of by infiltrated leukocytes in allergic inflammation model in rats, 757-764
- Neutrophils
  - antigens, 245-272
  - biochemistry and physiology of (book review), 561
  - human, immunochemical analysis of carcinoembryonic antigen related antigens differentially localized in intracellular granules of, 829-843

## O

- Oxygen-carrying blood substitutes, the development and use of, 403-410

## P

- Perforin, analysis of expression of in human peripheral blood lymphocytes, CD56+ natural killer cell subsets, and induction of by interleukin-2, 499-507
- Peyer's patch autoreactive helper T cells, induction of immunoglobulin A B cell differentiation of bone marrow deprived B cells by, 701-711
- Photodynamic virus inactivation, of blood components, 73-85
- Platelet concentrates, the quality of, 353-373
- Polypeptide immunoreactants, stability of on polyester cloth during dry storage using polyvinyl alcohol as a blocking agent, 795-803

- Polyvinyl alcohol, use of as a blocking agent on polyester cloth during dry storage, stability of polypeptide immunoreactants on, 795-803
- PPD reactive cells, nonadherent, characterization of an inhibitory seric factor from tuberculosis anergic patients that acts on, 865-879
- Pre-B cells, Abelson virus transformed, bone marrow stroma-dependent modulation of CD45R isoform expression on, 509-522
- Pretransfusion testing, value of for bacterial contamination of blood products, 163-170
- Progenitor cells, from cord blood, relation of growth factors to, 391-402
- Proteins
  - C-reactive, ratio of with plasma neopterin as an adjunct to the assessment of infection and cancer cachexia, 479-487
  - immunologically important, association of blood group antigens with, 213-232
  - 68kD neuroendocrine, I-45 islet cell antigen as, 573-582

## Q

- Quality
  - of platelet concentrates, 353-373
  - of red blood cells, 371-390

## R

- Receptors, parasitic/bacterial/viral, blood group antigens as, 213-232
- Red blood cell
  - complexities of, 3-21
  - concentrates, factors influencing the removal of infectious agents from, 87-93
  - membrane
    - hot spots in, molecular aspects of some red cell antigens, 199-212
    - interactions of with its underlying skeleton, 187-198

[Red blood cell *continued*]

- quality of, 371–390
- surface, importance of components of, 173–186
- Retrovirus-induced lymphoproliferative disease, in mice undergoing graft-versus-host reaction, 881–890
- Rheumatoid arthritis, *Mycobacterium tuberculosis* antigen, interleukin-2, and interleukin-2 inhibitor in patients with, 957–964

## S

- Seminoma, accumulation of  $\gamma/\delta$  T cells in and roles of in autologous tumor killing and granuloma formation, 607–618
- Serum albumin, bovine, for enhancement of *in vitro* production of tumor necrosis factor alpha by murine macrophages, 737–756
- Serum amyloid A, synergistic activation of on human Hep 3B hepatoma cell line by interleukin-6 and interleukin-1 in combination, role of prostaglandin E2 and interleukin-1 receptor antagonist in, 523–535
- Silicone oils and gels, the effect of molecular weight and gel preparation on humoral adjuvancy of, 537–547
- Single-chain Fv antibody, anti-CD44, as a stimulator of natural killer cell activity and inducer of tumor necrosis factor alpha release, 907–926
- Somatostatin-avidin complexes, incorporated into immune-stimulating complexes, induction of systemic and mucosal immune responses following immunization with, 819–828
- Staphylococcal enterotoxin, as a bovine T cell superantigen, 805–818
- Stem cells
  - from cord blood, relation of growth factors to, 391–402
  - hematopoietic, overview of therapeutic concepts for use of, 443–449

## Storage

- dry, stability of polypeptide immunoreactants and polyvinyl alcohol as a blocking agent on polyester cloth during, 795–803
- effect of on blood transfusions, 303–309
- Stress hormones, selective inhibitory effects of on natural killer cell activity of lymphocytes from AIDS patients, 689–699
- Superantigens
  - bacterial, for induction of the proliferation of resting gamma/delta receptor bearing T cells, 713–724
  - bovine T cell, staphylococcal enterotoxin as, 805–818

## T

- T cell receptor  $\beta$  chain gene transgenic mouse strain, abrogation of the allelic exclusion in, 927–946
- T cells
  - bovine superantigen, staphylococcal enterotoxin as, 805–818
  - CD8<sup>+</sup> subsets, in aging, 891–895
  - clone, dengue virus specific human CD8<sup>+</sup>, modulation of the functions of by interleukin-2, interleukin-7, and interferon gamma, 619–629
  - cytokine production, effect of CD80 and CD86 on, 965–976
  - gamma/delta
    - accumulation of in human dysgerminoma and seminoma, roles of in autologous tumor killing and granuloma formation, 607–618
    - resting receptor bearing, bacterial superantigens for the induction of the proliferation of, 713–724
    - growth of B cell colonies independent of, 669–678
    - monocyte-mediated regulation of antigen-driven interferon gamma production by, 897–906
  - Peyer's patch autoreactive helper, induction of immunoglobulin A B cell differentiation of bone marrow



- deprived B cells by, 701-711
  - Temperature, for modulation of expression of genes involved in the inflammatory response in cultured human astroglial cells, 775-785
  - Testing
    - of blood donors for HIV, 147-154
    - for hepatitis, 155-161
    - for infectious diseases, existing problems in, 131-146
    - pretransfusion, value of for bacterial contamination of blood products, 163-170
  - Thyroglobulin, human, idiotypic restriction of murine monoclonal antibodies to a defined antigenic region of, 665-667
  - Transfusion immunology and medicine (book review), 861-864
  - Transfusion-transmitted infection, of cytomegalovirus, 117-128
  - Transplantation, role of anti-idiotypes to HLA in, 273-274
  - Tryptophan, serum, correlation of decrease of in patients with cancer cachexia with increased serum neopterin, 467-478
  - Tuberculosis, characterization of an inhibitory seric factor from anergic patients
    - with that acts on nonadherent PPD reactive cells, 865-879
  - Tumor growth-promoting effect, of allogeneic blood transfusions, 311-317
  - Tumor markers, blood group antigens as, 213-232
  - Tumor necrosis factor
    - alpha
      - enhancement of *in vitro* murine macrophage production of by bovine serum albumin preparations, 737-756
      - induction of release of by an anti-CD44 single-chain Fv antibody, 907-926
    - endogenously produced, the role of in monocyte-mediated regulation of antigen-driven interferon gamma production by T cells, 897-906
- V
- V $\gamma$ (I), restriction of expression of in human intestinal lymphocytes, 947-955
  - Viruses
    - photodynamic inactivation of for blood components, 73-85
    - reduction of contamination of blood components by, 25-48





# IMMUNOLOGICAL INVESTIGATIONS

## INSTRUCTIONS FOR PREPARATION OF MANUSCRIPTS FOR DIRECT REPRODUCTION

*Immunological Investigations* is a journal of Molecular, Cellular, and Clinical Immunology.

### DIRECTIONS FOR SUBMISSION

One manuscript suitable for direct reproduction and two copies of the manuscript must be submitted to the Editorial Office.

### REPRINTS

Owing to the short production time for articles in this journal it is essential to indicate the number of reprints required upon notification of acceptance of the manuscript. Reprints are available in quantities of 100 and multiples thereof, in addition to the twenty (20) free copies provided to the senior author with orders of 100 or more reprints; a reprint price list will be sent to the senior author with the notification of acceptance of the manuscript.

*Manuscript should be mailed to:*

Editorial Office, The Ernest Witebsky Center for Immunology  
207 Sherman Hall, School of Medicine  
State University of New York at Buffalo  
Buffalo, New York 14214  
Telephone: (716) 829-2900; Fax: (716) 829-2158

### INSTRUCTIONS FOR THE PREPARATION OF MANUSCRIPTS

Since all contributions are reproduced by direct photography of the manuscripts, the following instructions must be strictly adhered to. Non-compliance will result in the return of the manuscript to the author(s) and delay in its publication.

### TYPING INSTRUCTIONS

1. Manuscripts must be typewritten, 1½ spaced, on good quality white bond paper measuring at least 8½ x 11 inches.
2. Use a black typewriter ribbon. Errors may be corrected by using white opaque correcting fluids or tapes.
3. The typing area of page 1, including the title, should be 6¼ x 8½ and that of all other pages 6¼ x 9½.
4. Tables should be typed as part of the text but in such a way as to separate them from the text by a three line space at both top and bottom. The title TABLE (capitalized and followed by a Roman number) should precede the table and be centered.
5. Draw graphs and other numbered figures in black ink on a separate piece of white paper. Photographs should be glossy black and white prints. Type legends or figures single spaced on a separate sheet, along the full width of the page.

The indication FIGURE should be capitalized and, with the figure's number (in Arabic numerals), centered above the legend. Indicate the top of the picture on the back. Indicate with blue pencil in the text where the picture(s) should be inserted.

6. Number the references (including footnotes) in the text consecutively by numbers in parentheses. Collect the references (and footnotes) at the end, as follows:

(*journal*): S. G. Trasher, N. Dorosczak and S. Cohen, *J. Immun.*, 107, 1394-1401 (1971).

(*book*): D. Pressman and A. L. Grossberg, The Structural Basis of Antibody Specificity. Benjamin, New York, (1968) pp. 25-32.

(*article in book*): F. Milgrom, in International Convocation on Immunology, Vol. 1., N. Rose and F. Milgrom, eds. Karger, New York, (1969) pp. 270-277.

## FORMAT OF MANUSCRIPTS

1. The title should be capitalized and centered, at least two inches from the top of the page. This is followed by a one-line space and by the name(s) and address(es) of the author(s) as follows:

### AUTOMIMMUNE RESPONSES TO THYROGLOBULIN IN RATS

T. Atkins and Z. Ginsberg

Departments of Microbiology and Pathology

School of Medicine, State University of New York at Buffalo

Buffalo, New York 14214

2. Then, after a three line space, follows the abstract, comprising less than 10% of the length of the text of the article. It must be typed single spaced and headed ABSTRACT.

3. After a three line space follows the article itself, whenever possible subdivided into sections such as: MATERIALS AND METHODS, RESULTS, DISCUSSION, ACKNOWLEDGMENTS and REFERENCES. The headings should be centered and separated by one extra line space from the typed material that precedes and follows it.

4. Each page of manuscript should be numbered lightly at the bottom of the sheet, with a blue pencil.



Understand the protective function of stress proteins more fully with...

Contains authoritative contributions from more than **85** internationally acclaimed experts in their respective fields!

# Stress Proteins in Medicine

edited by

**WILLEM VAN EDEN**

*University of Utrecht, The Netherlands*

**DOUGLAS B. YOUNG**

*Imperial College of Science, Technology and Medicine, London, England*

October, 1995

596 pages, illustrated—with color photographs!

\$195.00

This **state-of-the-art** reference provides a thorough overview of current knowledge of stress proteins in both normal and disease physiology **and** evaluates the potential for developing **novel** diagnostic, prophylactic, and therapeutic approaches to control human disease based on the **latest** stress-protein research

Investigates the immunological significance of stress proteins in a variety of clinical entities such as

- |                      |                    |
|----------------------|--------------------|
| ■ diabetes           | ■ tuberculosis     |
| ■ arthritis          | ■ leishmaniasis    |
| ■ atherosclerosis    | ■ fungal infection |
| ■ multiple sclerosis | ■ sarcoidosis      |
| ■ muscular diseases  | ■ liver disease    |
| ■ cancer             | ■ gastritis        |
| ■ Crohn's disease    | ■ celiac disease   |
| ■ lupus              | ■ allergic asthma  |

Reviewing the role of stress proteins in biology, **Stress Proteins in Medicine**

- discusses immunity to both stress proteins of microbial organisms and the stress proteins expressed as autoantigens
- delineates the excessive synthesis of stress proteins in diseased tissues
- considers whether stress proteins are best described by a single set of general principles or within the context of individual diseases
- covers stress proteins in infertility, tumor immunology, and organ transplantation
- examines myocardial protection in heart disease
- focuses on the use of stress proteins as carrier molecules for vaccines
- explores the relationship between stress proteins and the gamma/delta subset of T cells
- and more!

furnishing over **2025** up-to-date literature citations.

**Stress Proteins in Medicine** is an invaluable reference for immunologists; allergists; infectious disease and autoimmune specialists; molecular, cell, and tumor biologists; microbiologists; pathologists; physiologists; biotechnologists; and upper-level undergraduate, graduate, and medical school students in these disciplines

## Contents

### Overview

Stress Proteins as Molecular Chaperones, *R. John Ellis*

The Unique Role of Heat Shock Proteins in Infections, *Bernd Schoel and Stefan H. E. Kaufmann*

Clinical Implications of the Stress Response, *George Minoura and William J. Welch*

T-Lymphocyte Recognition of Hsp 60 in Experimental Arthritis,

*Stephen M. Anderton and Willem van Eden*

Heat Shock Protein 60 and the Regulation of Autoimmunity, *Irun R. Cohen*

### Stress Proteins and Specific Immune Responses

Immune Responses to Heat Shock Proteins in Reactive Arthritis, *I. S. H. Gaston and H. H. Pearce*

Juvenile Chronic Arthritis and Heat Shock Proteins, *E. R. de Graeff-Meeder, G. T. Rijkers, I. B. J. Prakken, W. Kujs, B. J. M. Zegers, R. van der Zee, and Willem van Eden*

T-Cell Responses to Heat Shock Proteins in Rheumatoid Arthritis, *Harold G. Wiker, Morten Harboe, and Jacob B. Natvig*

Heat Shock Protein 60 Autoimmunity in Lyme Disease, *Zhi-bong Dai, Stanley Stein, Stephanie Williams, and Leonard H. Sigal*

Stress Proteins in Behçet's Disease and Experimental Uveitis, *T. Lehnert, A. Childerstone, K. Pervin, A. Hasan, H. Direskeneli, M. R. Stanford, R. Whiston, E. Kasp, D. C. Dumonde, T. Shinnick, R. van der Zee, and Y. Mizushima*

Stress Proteins in Systemic Lupus Erythematosus, *John B. Winfield and Wael N. Jarjour*

Expression of and Immune Response to Heat Shock Protein 65 in Crohn's Disease, *Willy E. Peetermans*

Stress Proteins in Multiple Sclerosis and Other Central Nervous System Diseases, *Gary Birnbaum*

Heat Shock Protein 60 and Insulin-Dependent Diabetes Mellitus, *David B. Jones and N. W. Armstrong*

Protection Against Tumors by Stress Protein Gene Transfer, *Katalin V. Lukacs, Douglas B. Lowrie, and M. Joseph Colston*

Immune Responses to Stress Proteins in Mycobacterial Infections, *Juraj Ilavský, Pamela M. Norton, and Goro Matsuzaki*

Heat Shock Proteins in Fungal Infections,

*Bruno Maresca and George S. Kabayashi*

Stress Proteins and Infertility, *Steven S. Wilkin*

Heat Shock Proteins in Visceral Leishmaniasis,

*Paulo Paes de Andrade and Cynthia Rayol de Andrade*

Role of Heat Shock Protein Immunity in Transplantation, *Rene J. Duquesnoy and Ricardo Moliterno*

### Stress Proteins and Expression in Diseased Tissue

Lupus and Heat Shock Proteins, *Breda N. Twomey, Veena B. Dhillon, David S. Latchman, and David Isenberg*

Sarcoidosis, *H. Bielefeldt-Ohmann, J. M. Staton, and Joanne Dench*

Stress Proteins in Inflammatory Liver Disease, *Ansgar W. Lobse and Hans Peter Dienes*

*Helicobacter pylori*-Associated Chronic Gastritis, *Lars Engstrand*

Jejunal Epithelial Cell Stress Protein Expression in Gluten-Induced Enteropathy (Celiac Disease), *Markku Mäki and Immo Rantala*

Identification of Endogenous Heat Shock Protein 60 as an Autoantigen in Autoimmune NOD Mouse Diabetes, *Kalina Brudzynski*

Expression of Stress Proteins in Diabetes Mellitus: Detection of a Heat Shock Protein 60-like Protein in Pancreatic RINm5F  $\beta$ -Cell Plasma Membranes, *Burkhard Göke, Brigitte Lankat-Bultgereit, Hanna Steffen, Rüdiger Göke, and Friedrich Lottspeich*

Stress Proteins in Atherogenesis, *Qingbo Xu and Georg Wick*

Stress Proteins and Myocardial Protection, *Michael R. Goralmski, Benedict R. Luccchesi, and Shaun C. Black*

Heat Shock Proteins in Eosinophilic Inflammation, *Pandora Christie, Muriel R. Jacquier-Sarlin, Anne Janin, Jean Bousquet, and Barbara S. Polla*

Heat Shock Proteins in Duchenne Muscular Dystrophy and Other Muscular Diseases, *Liza Bornman and Barbara S. Polla*

Mitochondrial Neuromuscular Disease Associated with Partial Deficiency of Heat Shock Protein 60, *Etienné Agsteribbe and Anke Huckriede*

continued ▶

**Marcel Dekker, Inc.**

270 Madison Avenue,  
New York, NY 10016  
(212) 696-9000

Hutgasse 4, Postfach 812,  
CH-4001 Basel, Switzerland  
Tel. 061-261-8482

# Stress Proteins in Medicine

## Contents (continued)

### Stress Proteins and Interactions with Proteins or Cells in Immunity

Heat Shock Proteins as Chaperones of Unique and Shared Antigenic Epitopes of Human Cancers: A Novel Approach to Vaccination,  
*Pramod K. Srivastava*

In Vivo Carrier Effect of Heat Shock Proteins in Conjugated Vaccine Constructs, *Giuseppe Del Giudice*

Major Histocompatibility Complex Class Ib Molecules: A Role in the Presentation of Heat Shock Proteins to the Immune System?, *Farhad Imani, Thomas M. Shinnick, and Mark J. Soloski*

Polyclonal Responses of  $\gamma\delta$  T Cells to Heat Shock Proteins, *Willi Born, Mary Ann DeGroot, Yang-Xin Fu, Christina Ellis Roark, Kent Heyborne, Harsban Kalataradi, Katherine Kelly, Christopher Reardon, and Rebecca O'Brien*

ISBN: 0-8247-9623-3

*This book is printed on acid-free paper*



For Credit Card and Purchase Orders, and Customer Service

**CALL TOLL-FREE 1-800-228-1160**  
Mon.-Fri., 8:30 a.m. to 5:45 p.m. (EST)  
or FAX your order to 914-796-1772

*Mail today!*

# Order Form

Mail to: **Promotion Dept., MARCEL DEKKER, INC.**  
270 Madison Avenue, New York, N. Y. 10016

☐ Please send me \_\_\_\_\_ copy(ies) of ***Stress Proteins in Medicine*** edited by Willem van Eden and Douglas B. Young at \$195.00 per volume.

☐ Please send me \_\_\_\_\_ copy(ies) of ***Tumor Necrosis Factors*** edited by Bharat B. Aggarwal and Jan Vilcek at \$199.00 per volume.

*Please add \$2.50 for postage and handling per volume on prepaid orders and only \$1.00 per volume*

Enclose payment in the amount of \$ \_\_\_\_\_ by ☐ check ☐ money order ☐ Visa ☐ MasterCard ☐ Am.Exp.

Card No. \_\_\_\_\_ Exp. Date \_\_\_\_\_

Please bill my company: PO. No. \_\_\_\_\_

Signature \_\_\_\_\_  
(must be signed for credit orders)

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

N.Y. residents must add appropriate sales tax. Canadian customers add 7% GST. Prices are subject to change without notice.

Form No. 099530

Printed in U.S.A.

*Of related interest...*

# Tumor Necrosis Factors

## Structure, Function, and Mechanism of Action

(Immunology Series/56)

edited by

**BHARAT B. AGGARWAL**

*University of Texas M. D. Anderson Cancer Center  
Houston*

**JAN VILCEK**

*New York University Medical Center  
New York, New York*

624 pages, illustrated / \$199.00

"This volume is highly recommended for obtaining broad and up-to-date information on TNF from both basic and clinical points of view."

—*International Journal of Hematology*

"...the editors have gathered a group of investigators knowledgeable in the field, each of whom has superbly accomplished the task of summarizing the literature and placing the studies in perspective....This book will prove valuable to a wide audience."

—*American Journal of Physiology:*

*Lung Cellular and Molecular Physiology*

# Contents

## Protein and Gene Structure of TNF- $\alpha$ and TNF- $\beta$

Genomic Structure, Induction, and Production of TNF- $\alpha$ , *David R. Spriggs, Stephan Deutsch, and Donald W. Kufe*

Genomic Structure, Induction, and Production of TNF- $\beta$ , *Regina L. Turetskaya, Sarah J. Fasbena, Nina L. Paul, and Nancy H. Ruddle*

Comparative Analysis of the Structure and Function of TNF- $\alpha$  and TNF- $\beta$ , *Bharat B. Aggarwal*

Precursor Structures and Structure-Function Analysis

of TNF and Lymphotoxin, *W. Fiers*

Crystal Structure of TNF,

*E. Y. Jones, D. I. Stuart, and N. P. C. Walker*

## Receptors and Mechanism of Action of TNFs

Characterization of TNF Receptors,

*Richard A. Smith and Corrado Baglioni*

Regulations of TNF Receptors,

*Masafumi Tsujimoto and Naoto Oku*

Purifications and Structural Properties of Two Distinct

TNF Receptors on Human Cells,

*Hansruedi Loetscher*

Signal Transduction and TNF-Responsive Genes,

*Martin Kronke, Stefan Schutze, Peter Scheurich,*

*and Klaus Pfizenmaier*

Natural Inhibitors of TNF,

*Philippe Seckinger and Jean-Michel Dayer*

## Biological Actions of TNFs

Antiproliferative and Antitumor Activity of TNF in

Vitro and in Vivo,

*Saleem T. A. Malik and Frances R. Balkwill*

TNF as a Growth Factor,

*Jan Vilcek and Vito J. Palombella*

Effects of TNF and Lymphotoxin on the Hematopoietic

System, *Giorgio Trinchieri*

TNF as Immunomodulatory Agents,

*Benjamin Bonavida*

TNF and Viruses: Multiple Interrelationships,

*Berish Y. Rubin*

Role of TNF in Resistance to Bacteria,

*Edward A. Havell*

Roles of TNFs in Malaria and Other Parasitic

Infections, *I. A. Clark and W. B. Cowden*

TNF in Autoimmune Diseases, Graft-Versus-Host Reac-

tions, and Pulmonary Fibrosis, *Pierre Vassalli,*

*Georges E. Grau, and Pierre-François Piguel*

Pleiotropic Effects of TNF in Infection and Neoplasia:

Beneficial, Inflammatory, Catabolic, or Injurious,

*Karin J. Tracey and Anthony Cerami*

Tissue Damage Caused by TNF and Complement,

*Jay L. Rothstein and Hans Schreiber*

Effects of TNF and Lymphotoxin on Bone Cells,

*G. R. Mundy, G. D. Roodman, L. F. Bonewald,*

*T. Yoneda, and M. Sabatini*

Relationships of TNF to Interleukins,

*Ruth Neta, Tom Sayers, and Joost J. Oppenheim*

Recombinant Human TNF- $\alpha$ : Preclinical Studies and

Results from Early Clinical Trials, *Sam Saks*

ISBN: 0-8247-8554-1



Give your bone or joint infected patients the most up-to-date, properly targeted clinical care possible with...

Contains important, multidisciplinary contributions from recognized experts in the fields of pediatric and adult infectious diseases, immunology, pharmacology, radiology, and orthopedic surgery!

# Diagnosis and Management of Bone Infections

(Infectious Disease and Therapy Series/16)

edited by **LUIS E. JAUREGUI**

*St. Vincent Medical Center, Toledo, Ohio, and  
Medical College of Ohio at Toledo*

February, 1995 / 480 pages, illustrated / \$150.00

This **practical, single-source** reference offers comprehensive examinations of bone and joint infections—elucidating the anatomical, pathophysiological, microbiological, and diagnostic aspects of each condition.

***Discusses all major types of infections and provides in-depth coverage of their subsets, including skull, mandible, sternum, tendon, bursae, and disc space infections as well as vertebral osteomyelitis, puncture wounds of the foot, and diabetic foot infections!***

Furnishing organized, thorough descriptions of both **medical and surgical** treatments, ***Diagnosis and Management of Bone Infections***

- emphasizes clinical presentations and therapy
- delineates the theoretical background of infections
- investigates in detail acute and chronic infectious arthritis and acute and chronic osteomyelitis
- addresses the prevention and clinical management of infections related to orthopedic surgery and prosthesis implantation
- reviews antimicrobial selection and the therapeutic efficacy of antimicrobial treatments
- and more!

With over **1550** bibliographic citations, tables, drawings, and x-rays, ***Diagnosis and Management of Bone Infections*** is an incomparable **guide** for infectious disease specialists, orthopedists and orthopedic surgeons, pediatricians, internists, immunologists, pharmacologists, radiologists, family practice physicians, and graduate and medical school students in these disciplines.

## Contents

### Acute Osteomyelitis

*Meera Gupta and Lawrence D. Frenkel*

### Chronic Osteomyelitis

*Luis E. Jauregui and Connie L. Senour*

### Osteomyelitis of the Skull, Mandible, and Sternum

*Virginia M. Bieluch and Joseph G. Garner*

### Puncture Wounds of the Foot

*Susan McInnes and James H. Reese*

### Disk Space Infections

*Tammy S. Lundstrom and Donald P. Levine*

### Vertebral Osteomyelitis

*Larry J. Strausbaugh*

### Diabetic Foot Infections

*Carl B. Lauter*

### Animal Models of Osteomyelitis

*J. Peter Rissing*

### Infectious Arthritis

*Virginia M. Bieluch and Joseph G. Garner*

### Infections of Bursae and Tendon Sheaths

*Luis E. Jauregui and Wendy I. Wexler*

### Radiographic Diagnosis of Bone and Joint Infection

*Shelia S. Manion and Antoinette L. LaValley*

### Principles of Current Management of Prosthetic Joint Infections

*Michael W. Britt, Jason H. Calhoun, and John T. Mader*

### Principles of Antimicrobial Distribution Governing the Selection of Antimicrobial Drugs for Bone and Joint Infections

*Kenneth A. Bachmann*

### Antimicrobial Prophylaxis in Orthopedic Surgery

*Jean-Claude Pechère and Harold M. Vasey*

### Surgical Approaches to the Management of Osteomyelitis

*James H. Reese and Jaime Barrio*

ISBN: 0-8247-8868-0

*This book is printed on acid-free paper*

## Marcel Dekker, Inc.

270 Madison Avenue, New York, NY 10016 • (212) 696-9000  
Hutgasse 4, Postfach 812, CH-4001 Basel, Switzerland • Tel. 061-261-8482



Understand and apply the latest clinical and research developments in  
a major class of mast cell mediators with...

# Mast Cell Proteases in Immunology and Biology

(Clinical Allergy and Immunology Series/6)\*

edited by

**GEORGE H. CAUGHEY**

University of California, San Francisco, School of Medicine

May, 1995 / 354 pages, illustrated / \$145.00

**T**his **state-of-the-art** reference provides timely and clinically and experimentally useful information on the major proteins of mast cell secretory granules that are released into the lung, skin, gut, eye, and other tissues under the influence of diverse stimuli—including cytokines, growth factors, neuropeptides, and allergen-bound immunoglobulin E.

**Demonstrates the important roles proteases play in the maintenance of tissue homeostasis as well as in the damaging events linked with allergy and other varieties of inflammation!**

Offering a bridge to the gaps between knowledge of structure and function, *Mast Cell Proteases in Immunology and Biology*

- places **new developments** in a balanced historical context
- examines in detail each of the major granule-associated mast cell proteases, including tryptases, chymases, and carboxypeptidases
- explores the role of mast cell proteases in **allergic diseases** such as asthma, hives, anaphylaxis, and parasitosis
- highlights data on the function of mast cell proteases in **nonallergic processes** such as neurogenic and complement-mediated inflammation, psoriasis, tissue fibrosis, and lipoprotein metabolism
- outlines the clinical, forensic, and experimental uses of mast cell proteases as markers of mast cell stimulation and anaphylaxis
- clarifies the complex structural and evolutionary relationships among mast cell proteases
- illustrates the rationale for the pharmaceutical development of protease inhibitors
- and much more!

Generously illustrated and containing over 1100 bibliographic citations, *Mast Cell Proteases in Immunology and Biology* is an outstanding resource for clinical immunologists and allergists, cell biologists, biochemists, pathologists, physiologists, dermatologists, pulmonologists, rheumatologists, otolaryngologists, parasitologists, pharmacologists, and graduate and medical school students in these disciplines.

## Contents

**Mast Cell Proteases: A Historical Perspective,**  
*David Lagunoif*

**Mast Cell Tryptase: Properties and Roles in Human Allergic Responses,** *Lawrence B. Schwartz*

**Skin Tryptase: Features and Expression in Human Dermatological Disorders,** *Ilkka T. Harvima, Rauno J. Harvima, Anita Naukkarinen, and Maija Horsmanheimo*

**Chymotrypsin-like Proteinases of Human Skin Mast Cells,**  
*Norman M. Schechter*

**Mast Cell Neuropeptidases,** *Elizabeth K. Tam*

**Mast Cell Carboxypeptidase: Structure and Regulation of Gene Expression,** *Sanford M. Goldstein*

**Tissue and Development Variation of Protease Expression in Human Mast Cells,** *Anne-Marie A. Irani*

**Dog Mast Cell Proteinases in Models of Airway Secretion, Bronchoconstriction, Cutaneous Vascular Permeability, and Tissue Fibrosis,** *Christian P. Sommerhoff*

**Secretory Endo- and Exopeptidases of Mouse Mast Cells: Structure, Genetics, and Regulation of Expression,**  
*Eric B. Springman and William E. Serafin*

**Mast Cell Chymases in Helminthosis and Hypersensitivity,**  
*Hugh R. P. Miller, John F. Huntley, and George F. J. Newlands*

**Control of Tryptase and Chymase Activity by Protease Inhibitors,** *Hiroshi Kido and Nobuhiko Katunuma*

**Role of Mast Cell Proteases and Proteoglycans in Lipoprotein Metabolism,**  
*Jorma O. Kokkonen, Ken A. Lindstedt, and Petri T. Kovanen*

**Physiological Regulation of C3a Anaphylatoxin Activity by Mast Cell Chymase,** *Tony E. Hugli*

**Mast Cell Chymases and Tryptases: Phylogeny, Family Relations, and Biogenesis,** *George H. Caughey*

**Appendix: Mast Cell Protease Nomenclature and Abbreviations**

ISBN: 0-8247-9484-2

*This book is printed on acid-free paper*

\**Clinical Allergy and Immunology* is a series of individual volumes under the general editorial direction of Michael A. Kaliner, Institute for Asthma and Allergy, Washington, D.C.

**Marcel Dekker, Inc.**

270 Madison Avenue, New York, NY 10016 • (212) 696-9000  
Hutgasse 4, Postfach 812, CH-4001 Basel, Switzerland • Tel. 061-261-8482

Understand up-to-the-minute developments in blood transfusion methods and  
take advantage of the most appropriate clinical techniques with...

# Transfusion Immunology and Medicine

edited by

**CAREL J. VAN OSS**

*State University of New York at Buffalo*

January, 1995 / 480 pages, illustrated / \$175.00

Based on the proceedings of the International Convocation on Immunology held recently at the State University of New York at Buffalo, this up-to-date resource provides a **state-of-the-art examination** of blood transfusion practice and its future possibilities.

**Explains the immunological effects of blood transfusion as well as its immunological and microbiological hazards and offers potential remedies!**

Examining in detail current knowledge on the molecular makeup of the erythrocyte, **Transfusion Immunology and Medicine**

■ supplies the **latest testing procedures** for viruses and bacteria

■ discusses the removal of leukocytes, viruses, and bacteria from red blood cells and the general reduction of infectivity in blood components

■ addresses blood components, blood substitutes, and the use and collection of hematopoietic stem cells

■ delineates the advantages and disadvantages of autogeneic blood transfusions

■ introduces **new aspects** of red cell and leukocyte blood groups and their clinical implications

■ presents two treatments for immune hematologic disorders

■ illustrates the effects of blood storage time and temperature on cell survival and transfusion reactions

■ demonstrates the influence of cytokines, idiotypes, and immunoglobulins on blood transfusions

■ and much more!

Generously illustrated with tables and figures and containing over **1500** bibliographic citations, **Transfusion Immunology and Medicine** is an outstanding reference for hematologists; immunologists; transfusionists; surgeons; infectious disease specialists; epidemiologists; pathologists; cell biologists; medical, scientific, and technical personnel in blood centers, blood transfusion services, and hospital blood banks; and graduate and medical school students in these disciplines.

## Contents

### The Ernest Witebsky Memorial Lecture

Red but Not Dead: Not a Hapless Sac of Hemoglobin, *T. J. Greenwalt*

### Infectious Agents and Their Removal from Blood and Blood Components

Viral Contamination of Blood Components and Approaches for Reduction of Infectivity, *R. Y. Dodd*

Reducing the Infectivity of Blood Components—What We Have Learned, *L. I. Friedman, R. R. Stromberg, and S. J. Wagner*

Photodynamic Virus Inactivation of Blood Components, *H. Mohr, B. Lambrecht, and A. Selz*

Leukocyte Filtration Mechanisms: Factors Influencing the Removal of Infectious Agents from Red Cell Concentrates, *I. Steneker, R. N. I. Pietersz, and H. W. Reesink*

Use of Leukodepletion Filters for the Removal of Bacteria, *W. Dzik*

Transfusion-Transmitted Cytomegalovirus Infection, *R. A. Bowden*

### Testing for Infectious Agents

Existing Problems in the Testing for Infectious Diseases, *K. Szazama*

Testing Blood Donors for HIV: Current Controversies, *M. P. Busch*

Hepatitis Testing, *C. Bianco*

Bacterial Contamination of Blood Products and the Value of Pre-transfusion Testing, *M. A. Blajchman*

### Allotypes

What Is Important on the Red Blood Cell Surface, *P. Tippiett*

Functional Factors in the Red Cell Membrane: Interactions Between the Membrane and Its Underlying Skeleton, *D. J. Anstee, N. J. Hemming, and M. J. A. Tanner*

Hot Spots in the Red Cell Membrane: Molecular Aspects of Some Red Cell Antigens, *G. Daniels*

Blood Group Antigens as Tumor Markers, Parasitic/Bacterial/Viral Receptors, and Their Association with Immunologically Important Proteins, *G. Garratty*

The Role of the Lymphocyte in an Immune Response, *K. Balakrishnan and L. E. Adams*

Neutrophil Antigens, from Bench to Bedside, *A. E. G. Kr. von dem Borne, M. de Haas, D. Roos, C. H. E. Homburg, and C. E. van der Schoot*  
Anti-idiotypes to HLA and Their Role in Transplantation, *E. Reed*

### Immunological Effects of Blood Transfusion

Immunologic Effects of Blood Transfusion, *P. I. Tartler*

Transfusion Reactions: The Changing Priorities, *H. Perkins*

Blood Transfusion, Blood Storage, and Immunomodulation, *M. S. Minchey and H. T. Meryman*  
The Tumor Growth-Promoting Effect of Allogeneic Blood Transfusions, *M. A. Blajchman and J. O. Bordin*

The Role of Cytokines in Hemolytic Transfusion Reactions, *R. D. Davenport*

The Role of Cytokines and Adhesive Molecules in Febrile Non-hemolytic Transfusion Reactions, *E. L. Snyder*

Neonatal Anemia: Pathophysiology and Treatment, *R. G. Strauss*

Quality of Platelet Concentrates, *J. D. Sweeney, S. Holme, and A. Heaton*

The Quality of Red Blood Cells, *W. A. L. Heaton*  
Growth Factors and Cord Blood Stem and Progenitor Cells, *H. E. Broxmeyer*

The Development and Use of Oxygen-Carrying Blood Substitutes, *R. A. Dracker*

Novel Cellular Therapies, *H. G. Klein*

### Transfusion Strategies

Transfusion Strategies: Opportunities for Improvement, *J. E. Menitove*

Transfusion-Associated Graft-Versus-Host Disease and the Irradiation of Blood Components, *R. J. Davey*

Autologous Blood Transfusion: Evaluation of an Alternative Strategy in Reducing Exposure to Allogeneic Blood Transfusion, *S. Qutaibat*

Hematopoietic Stem Cells: "Form - Method - Characteristics," *R. A. Dracker*

Uses of Intravenous Gammaglobulin in Immune Hematologic Disease, *J. B. Bussel and T. P. Szatrowski*

ISBN: 0-8247-9640-3

*This book is printed on acid-free paper.*

The contents of this book originally appeared in the journal *Immunological Investigations* (1995, Vol. 24, Nos. 1 and 2), published by Marcel Dekker, Inc.

**MARCEL DEKKER, INC.**

70 Madison Avenue, New York, NY 10016 • (212) 696-9000

Postfach 812, CH-4001 Basel, Switzerland • Tel. 061-261-8482







**IMMUNOLOGICAL INVESTIGATIONS, 24(6), (1995)**

*Contents Continued*

<b>Effect of CD80 and CD86 on T Cell Cytokine Production . . . . .</b>	<b>965</b>
<i>T. M. Petro, S.-S. A. Chen, and R. B. Panther</i>	
<b>Interferon <math>\gamma</math> Potentiates Human Coronavirus OC43 Infection of Neuronal Cells by Modulation of HLA Class I Expression . . . . .</b>	<b>977</b>
<i>A. R. Collins</i>	
<b>Altered <i>In Vitro</i> Handling of <i>Mycobacterium avium</i> Complex by Monocytes and Serum from HIV(+) Patients . . . . .</b>	<b>987</b>
<i>R. P. Swartz, J. A. Roecklein, P. F. Pierce, Jr., and H. Yeager, Jr.</i>	
<b>The Effect of Human Cord Blood on SJL/J Mice After Chemo- ablation and Irradiation and Its Possible Clinical Significance . . . . .</b>	<b>999</b>
<i>N. Ende, N. M. Ponzio, D. Giuliani, P. S. Bagga, J. Godyn, M. Ende, and R. S. Athwal</i>	
<b>Book Reviews . . . . .</b>	<b>1013</b>
<b>Author Index to Volume 24 . . . . .</b>	<b>1023</b>
<b>Subject Index to Volume 24 . . . . .</b>	<b>1027</b>

# IMMUNOLOGICAL INVESTIGATIONS

Volume 24, Number 6, 1995

## CONTENTS

- Characterization of an Inhibitory Seric Factor from Tuberculosis  
Anergic Patients That Acts on Non-adherent PPD Reactive Cells ..... 865  
*M. L. Taylor, N. Elizondo, H. Mejia-López, J. Casasola,  
L. G. Martínez-García, E. Zenteno, M. A. Salazar, and  
M. Selman*
- Retrovirus-Induced Lymphoproliferative Disease in Mice  
Undergoing Graft-Versus-Host Reaction ..... 881  
*R. K. Cunningham, H. R. Thacore, P. Zhou, S. Nakeeb, and  
M. B. Zaleski*
- CD8<sup>+</sup> T Cell Subsets in Aging ..... 891  
*M. Ruiz, B. Esparza, C. Pérez, M. Barranquero, E. Sabino,  
and F. Merino*
- Monocyte-Mediated Regulation of Antigen-Driven IFN $\gamma$  Production by T Cells. The Role of Endogenously Produced TNF ..... 897  
*B. Mytar, M. Wołoszyn, I. Ruggiero, J. Pryjma, and  
M. Zembala*
- Characterization of an Anti-CD44 Single-Chain Fv Antibody  
That Stimulates Natural Killer Cell Activity and Induces TNF $\alpha$   
Release ..... 907  
*P. H. Tan, B. M. Sandmaier, and P. S. Stayton*
- Abrogation of the Allelic Exclusion in a T Cell Receptor  $\beta$  Chain  
Gene Transgenic Mouse Strain ..... 927  
*O. Mazda, Y. Aiba, N. Hattori, M. Li, S. Fujimoto,  
M. M. Davis, and Y. Katsura*
- V $\gamma$ (I) Expression in Human Intestinal Lymphocytes Is Restricted ..... 947  
*S. B. Landau, W. I. Aziz, J. Woodcock-Mitchell, and  
R. Melamede*
- Mycobacterium tuberculosis* Antigen, Interleukin 2, and Interleukin  
2 Inhibitor in Patients with Rheumatoid Arthritis ..... 957  
*C.-H. Wu, K.-C. Jeng, and J.-L. Lan*

(continued on inside back cover)